

**REMARKS**

Claims 1, 5-11 and 17-21 are pending in the application.

Claims 1, 5-11 and 17-21 are rejected.

This is an earnest attempt to show that all pending claims are in proper form of immediate allowance. Reconsideration and allowance of all pending claims is respectfully requested in view of the following:

***Responses to Rejections to Claims – 35 U.S.C. §103***

Claims 1 and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cho (U.S. Patent No. 6,148,353) (Cho hereinafter), Schinner (U.S., Patent Application Publication No. 2004/0212822) (Schinner hereinafter), "About SP-DIF or S/PDIF" by DJ Greaves (Greaves hereinafter), and with evidence of inherency provided by Computer Organization and Design, Second Edition, by John L. Hennessey et al (Hennessey hereinafter). Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cho, Schinner, Greaves and Hennessey as applied to Claim 6 above, and further in view of Markow et al (U.S. Patent No. 6,359,994) (Markow hereinafter). Claims 11, 15-17 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cho, Schinner and Greaves. Claims 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cho, Schinner and Greaves as applied to Claim 16 above, and further in view of Markow. These rejections are not applicable to the pending claims.

**These rejections are not applicable to the pending claims because the references, alone or in combination, fail to disclose ALL of the elements of the pending claims.**

For example, independent claim 1 recites, in part, "a first multi-pin docking connector in a portable portion, wherein only one audio pin of the first multi-pin docking connector is coupled to the audio coder and decoder, and wherein the only one audio pin of the first multi-pin docking connector is coupled to the audio coder and decoder via the unidirectional S/PDIF digital audio output; a second multi-pin docking connector in a docking station, wherein only one audio pin of the second multi-pin docking connector is coupled to the only one audio pin of the first multi-pin docking connector; and a digital audio receiver to convert S/PDIF digital audio to analog audio and including a unidirectional S/PDIF digital audio input, wherein the digital audio receiver is located at the docking station and coupled to the only one audio pin of the second multi-pin docking connector via the unidirectional S/PDIF digital audio input."

To this, the rejection on page 3 of the Office Actions mailed March 13, 2008 and August 14, 2008 state that "[a]s S/PDIF uses only a single conductor (See Page 1 Paragraphs 2-3 [of

Greaves]], the use of S/PDIF as the unidirectional digital audio link would necessarily only allow a single audio pin of the docking connector to be coupled to the audio coder and decoder through the S/PDIF link, and a single audio pin of the docking connector to be connected to the digital audio receiver through the S/PDIF link." This argument is respectfully traversed.

In another example, independent claims 11 and 21 recite, in part, "wherein the docking interface comprises a first multi-pin docking connector coupled to an audio coder and decoder using only one audio pin of the first multi-pin docking connector, and wherein the only one audio pin of the first multi-pin docking connector is coupled to only one audio pin of a second multi-pin docking connector, and wherein the second multi-pin docking connector is coupled to a digital audio receiver using the only one audio pin of the second multi-pin docking connector."

To this, the rejection on page 7 of the Office Actions mailed March 13, 2008 and August 14, 2008 state that "[a]s S/PDIF uses only a single conductor (See Page 1 Paragraphs 2-3 [of Greaves]), the use of S/PDIF as the digital audio signal format would necessarily only allow a single audio pin of the docking connector to be coupled to the audio coder and decoder through the S/PDIF link, and a single audio pin of the docking connector to be connected to the digital audio receiver through the S/PDIF link." This argument is respectfully traversed.

As the PTO recognizes in MPEP §2142:

The Examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the Examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

The USPTO clearly cannot establish a *prima facie* case of obviousness in connection with the amended claims for the following reasons:

35 U.S.C. §103(a) provides that:

[a] patent may not be obtained...if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.... (emphasis added)

Thus, when evaluating a claim for determining obviousness, all limitations of the claim must be evaluated. However, it is submitted that the references, alone, or in any combination, at least, do not teach the elements of "... only one audio pin of the first multi-pin docking connector ..." of the pending claims, as recited above, and in independent claims 1, 11 and 21, and further defined throughout the figures and specification of the pending application.

To the contrary, the cited portion of Greaves purported to teach these elements, reads as follows:

The physical link for S/PDIF carries a Biphase Manchester Coded stream. Manchester Coding is a class of line coding methods which combine a data stream with a clock on a single channel where there are up to two transitions on the line for each bit conveyed. With Biphase Manchester, there is a line transition at each end of a bit period and a central transition if the data is a one. For CD audio at 44.1 Ksps the line rate is 5.6448 megabaud and the effective data rate is 2.8224 Mbps or 352.8 kilobytes per second

RCA/phono sockets are commonly used for copper S/PDIF links, using a line level of about 0.5 volts and transformer isolation at both ends. As mentioned below, pro-audio devices may often use XLR connectors to carry the signal and they also use an AES/EBU extended subcode [].

Page 1, Paragraphs 2-3 of Greaves.

Thus, the only mention of the term "single" refers to a "single channel". As commonly known by those having ordinary skill in the audio art would surely understand that a single audio channel requires two conductors. These are commonly referred to as a "+" conductor and a "-" conductor for the audio signal. Therefore, the phrase "single channel" fails to teach "... only one audio pin of the first multi-pin docking connector ..." as recited in the pending claims.

The cited section of Greaves also mentions RCA/phono sockets and XLR connectors. Here again, it is commonly known in the art that both RCA/phono connectors and XLR connectors used in audio require two or more conductors. This is evidenced on Page 1, Paragraph 6 of Greaves, which states "... XLR connectors to carry S/PDIF over **differential pair cable**..." Therefore RCA/phono sockets and XLR connectors fail to teach "... only one audio pin of the first multi-pin docking connector ..." as recited in the pending claims.

It is submitted that the only finding of a single signal carrying device is of a "optic fibre". Page 2, paragraph 2 of Greaves. However, Paragraph 2 continues that the optic fibre is "non-conducting." Therefore, it is submitted that the "optic fibre" of Greaves could not teach the use of only one audio pin, as recited in the pending claims.

Therefore, it is submitted that independent claims 1, 11 and 21 and their respective dependent claims are allowable.

In response to the prior argument, the Final Office Action mailed August 14, 2008 states the following:

Applicant has argued that S/PDIF does not use a single conductor, and thus the cited prior art does not disclose that the only one audio pin of the multi-pin docking connector is coupled to the audio coder and decoder via a unidirectional S/PDIF digital audio output (See Pages 5-8). In response, the Examiner notes that it is well known in the art that S/PDIF digital audio is sent over a single conductor, as evidenced by "SPDIF Connection" by Gabriel Torres ("Torres") (See Figures 6, 7, 8, and 9), and not as alleged by applicant, over a connection requiring both "+" conductor and a "-" conductor. S/PDIF encodes both a data stream and a clock stream to be conveyed over a line [singular] (See Page 1 Paragraph 2 of Greaves). S/PDIF commonly uses as the single conductor an RCA cable which, as is well known in the art, consists of a single conductor surrounded by a grounded shield. Thus, as it is known in the art to transmit S/PDIF over a single conductor, one of ordinary skill in the art would naturally recognize that in the combinations of references as applied above, the S/PDIF would be transmitted over a single conductor. Further, the Examiner notes that, were S/PDIF to require multiple conductors, then only one audio pin of the multi-pin docking connector could not be coupled to the audio coder and decoder via a unidirectional S/PDIF digital audio output, as claimed, and the Applicant's claimed invention would be rendered inoperable.

Office Action mailed August 14, 2008, pages 9-10. These statements are traversed.

First of all, Torres FAILS as prior art. The pending application was filed December 16, 2003. Torres is dated November 25, 2004, nearly a year after the pending application was filed. Therefore, any reliance on this as prior art is defective. As a result, rejections relying on Torres are defective and should be withdrawn.

Second, even if Torres can be used as prior art, which it clearly cannot, the Figures 6, 7, 8, and 9 of Torres all relate to COAXIAL SPDIF connections and optical connections. The text of Torres relates to optical connections (which do not include a conductor), coaxial connections and RCA connections. COAXIAL AND RCA CONNECTIONS ARE TWO (2) CONDUCTOR CONNECTIONS. Both coaxial and RCA types of cables generally include a center conductor (conductor 1), which is surrounded by an insulator, which is then surrounded by stranded/braided cable (conductor 2), which is surrounded by an outer insulation. For example, coaxial cable is defined as "[a] cable formed from **two or more coaxial cylindrical conductors insulated from one another**. . . ." The Penguin Dictionary of Electronics, Third Edition, page 76, 1998. It is submitted that RCA connections commonly use a type of coaxial cable. Thus, both coaxial and RCA connections teach having TWO CONDUCTORS.

Third, the prior response and arguments DO NOT argue "that S/PDIF does not use a single conductor," as is claimed by the Examiner. To the contrary, the previous arguments argue that the CITED REFERENCES FAIL TO TEACH "... only one audio pin of the first multi-pin docking connector. . ." as is recited in the pending claims. See response of June 10, 2008, pages 7-8.

In light of the above, it is clear that the "Response to Arguments" statements provided in the Office Action mailed August 14, 2008 are not persuasive. Thus, any rejections relying on those statements are defective and should be withdrawn. A notice of allowance of all pending claims is respectfully requested.

In light of the above, it is impossible to render the subject matter of the claims as a whole obvious based on a single reference or any combination of the references, and the above explicit terms of the statute cannot be met. As a result, the USPTO's burden of factually supporting a *prima facie* case of obviousness clearly cannot be met with respect to the claims, and a rejection under 35 U.S.C. §103(a) is not applicable.

There is still another compelling, and mutually exclusive, reason why the references cannot be combined and applied to reject the claims under 35 U.S.C. §103(a).

The PTO also provides in MPEP §2142:

[T]he Examiner must step backward in time and into the shoes worn by the hypothetical "person of ordinary skill in the art" when the invention was unknown and just before it was made. In view of all factual information, the Examiner must then make a determination whether the claimed invention "as a whole" would have been obvious at that time to that person. ...[I]mpерmissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art.

In combining multiple references for a 103 rejection, the Supreme Court has ruled that the "teaching, suggestion, or motivation (TSM) test" still applies, but should be used in a more "expansive and flexible" manner. *KSR Int'l. Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1739. The Court stated that "a patent composed of several elements is **not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.** Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify **a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.** This is so because inventions in most, if not all, instances rely upon building blocks long since

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Docket No.: 16356.826 (DC-05328)

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uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known." Id. at 1741, emphasis added.

In the present case, the Examiner has not expressed any reason why a person of ordinary skill in art would combine the references in the way the claimed new invention does.

Thus, in the present case it is clear that the USPTO's combination arises solely from hindsight based on the present disclosure without any reason why a person of ordinary skill in the art would combine the references as required by the claims. Therefore, for this mutually exclusive reason, the USPTO's burden of factually supporting a *prima facie* case of obviousness clearly cannot be met with respect to the claims, and the rejection under 35 U.S.C. §103(a) is not applicable.


Therefore, independent claims 1, 11 and 21 and their respective dependent claims are submitted to be allowable.

In view of all of the above, the allowance of all pending claims is respectfully requested.

The Office Action contains characterizations of the claims and the related art to which the Applicant does not necessarily agree. Unless expressly noted otherwise, Applicants decline to subscribe to any statement or characterization in the Office Action.

The Examiner is invited to call the undersigned at the below-listed telephone number if a telephone conference would expedite or aid the prosecution and examination of this application.

Respectfully submitted,

  
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